Bruhat Bangalore Mahanagara Palike
Executive Engineer
Yelhanka Division

DETAILED ESTIMATE

Name of Work: Construction of CC roads at Gandhinagara near ICICI ATM Nehrunagara and Yelhanka old town near plegam temple in Ward No.1 of Yelhanka Sub division.

PROJECT COST: 50.00 Lakhs

Mecadez Core Technologies Private limited

Project Management and Consultancy Services

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BRUHAT BANAGLORE MAHANAGARA PALIKE

Executive Engineer-Yelhanka Division

Detailed Estimate

Name of Work: Construction of CC roads at Gandhinagara near ICICI ATM Nehrunagara and Yelhanka old town near plegam temple in Ward No.1 of Yelhanka Sub division

Estimate Amount : 5000000.00

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	CIVIL WORKS								
1	Removing BS Slab of drain and Stacking **(Page No 25., I.No.5.32 of KPWD S.R 2015-16).**								
		Sqm							
	COVER SLAB								
	1st cross from post office to dead end								
	Ch: (62 - 116)	R/s	1	54	1.50		81.00		
							81.00	**63.72**	**5161.32**
2	Refixing Stone Slabs of drains and Pointing in C.M(1:3) **(Page No 25., I.No.5.33 of KPWD S.R 2015-16).**								
		Sqm							
	COVER SLAB								
	1st cross from post office to dead end								
	Ch: (62 - 116)	R/s	1	54	1.50		81.00		
							81.00		
	Deduction for damaged 15%						-12.15		
							68.85	**78.84**	**5428.13**
3	KSRRB 300-1. **Earthwork excavation by manual means** in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **(Page No141., I.No.19.1 of KPWD S.R 2015-16).**								
		Cum							
	New drain								
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (0 - 51)	L/s	1	51	1.20	0.800	48.96		
	Ch: (58 - 145)	L/s	1	87	1.20	0.800	83.52		
	Ch: (151 - 169)	L/s	1	18	1.20	0.800	17.28		
	Ch: (0 - 51)	R/s	1	51	1.20	0.800	48.96		
	Ch: (58 - 169)	R/s	1	111	1.20	0.800	106.56		
	Desilting								
	Near Railway under pass								
	Ch: (0 - 35)	L/s	1	35	0.80	0.800	22.40		
	Ch: (35 - 74)	L/s	1	39	0.80	0.800	24.96		
	1st cross from post office to dead end								
	Ch: (62 - 116)	R/s	1	54	0.70	0.700	26.46		
	New Culvert								
	Near Railway under pass								
			1	5.7	1.80	1.200	12.31		
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (51 - 58)	L/s	1	7	1.80	0.800	10.08		

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Ch: (145 - 151)	L/s	1	6	1.80	0.800	8.64		
	Ch: (51 - 58)	R/s	1	7	1.80	0.800	10.08		
							420.21	**168.76**	**70914.98**
4	KSRB 4-1.2 : Providing and laying in **position plain cement concrete of mix1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregtes @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted,in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No. KBS 4.1, 4.2 **(Page No 12., I.No.4.2 of KPWD S.R 2015-16).**								
		Cum							
	New drain								
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (0 - 51)	L/s	1	51	0.90	0.100	4.59		
	Ch: (58 - 145)	L/s	1	87	0.90	0.100	7.83		
	Ch: (151 - 169)	L/s	1	18	0.90	0.100	1.62		
	Ch: (0 - 51)	R/s	1	51	0.90	0.100	4.59		
	Ch: (58 - 169)	R/s	1	111	0.90	0.100	9.99		
	New Culvert								
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (51 - 58)	L/s	1	7	1.50	0.100	1.05		
	Ch: (145 - 151)	L/s	1	6	1.50	0.100	0.90		
	Ch: (51 - 58)	R/s	1	7	1.50	0.100	1.05		
							31.62	**5236.92**	**165591.41**
5	Providing and laying Plain /reinforced cement concrete **M20** for Box drain walls of thickness 10cm to 20cm including centring shuttering for work etc. complete as per approved drawing and design MORTH specification No.1500,1700,2200 **(Page No258., I.No.37.59.2 of KPWD S.R 2015-16).**								
		Cum							
	Raft								
	New drain								
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (0 - 51)	L/s	1	51	0.90	0.150	6.89		
	Ch: (58 - 145)	L/s	1	87	0.90	0.150	11.75		
	Ch: (151 - 169)	L/s	1	18	0.90	0.150	2.43		
	Ch: (0 - 51)	R/s	1	51	0.90	0.150	6.89		
	Ch: (58 - 169)	R/s	1	111	0.90	0.150	14.99		
	New Culvert								
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (51 - 58)	L/s	1	7	1.50	0.200	2.10		
	Ch: (145 - 151)	L/s	1	6	1.50	0.200	1.80		
	Ch: (51 - 58)	R/s	1	7	1.50	0.200	2.10		
	Wall								
	New drain								

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (0 - 51)	L/s	2	51	0.15	0.800	12.24		
	Ch: (58 - 145)	L/s	2	87	0.15	0.800	20.88		
	Ch: (151 - 169)	L/s	2	18	0.15	0.800	4.32		
	Ch: (0 - 51)	R/s	2	51	0.15	0.800	12.24		
	Ch: (58 - 169)	R/s	2	111	0.15	0.800	26.64		
	New Culvert								
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (51 - 58)	L/s	2	7	0.20	0.800	2.24		
	Ch: (145 - 151)	L/s	2	6	0.20	0.800	1.92		
	Ch: (51 - 58)	R/s	2	7	0.20	0.800	2.24		
							131.65	**6931.44**	**912524.08**
6	KSRB 4.9.2 : Providing **T .M.T steel reinforcement** for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 for TMT Bars Fe500 **(Page No 17., I.No.4.46.2 of KPWD S.R 2015-16).**								
		Tonne							
	Taking 60kg/m3								
				131.65*60/1000			7.90		
							7.90	**69805.80**	**551396.01**
7	KSRRB M200-15.2. **Dismantling of existing structures** like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. **iii)Dismantling Stone Masonry. B. Rubble Stone masonry in cement mortar**.MORTH Specification No. 202 **(Page No 137., I.No.18.27 of KPWD S.R 2015-16).**								
		Cum							
	Near Railway under pass								
	Ch: (0 - 35)		2	35	0.60	0.200	8.40		
	Ch: (35 - 74)		2	39	0.60	0.200	9.36		
							17.76	**336.35**	**5973.58**
8	Providing and constructing granite / trap / basalt size stone masonry**(with available stones)** in foundation with cement mortar 1:6, stone hammered dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13								
		Cum							
	taking 60% of the above qty								
							10.66		
							10.66	**2709.72**	**28874.78**
9	KSRB 5.2-3. Providing and constructing granite / trap / basalt **size stone masonry in foundation** with cement mortar 1:6, stone hammered dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **(Page No 23., I.No.5.6 of KPWD S.R 2015-16).**								
		Cum							
	Near Railway under pass								
	Ch: (0 - 35)		2	35	0.60	0.250	10.50		

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Ch: (35 - 74)		2	39	0.60	0.250	11.70		
	1st cross from post office to dead end								
	Ch: (0 - 13)	L/s	2	13	0.45	0.250	2.93		
	Ch: (13 - 28)	L/s	2	15	0.45	0.250	3.38		
	Ch: (28 - 43)	R/s	1	15	0.45	0.250	1.69		
	Deduction of available stones						-10.66		
							19.53	**4135.32**	**80769.00**
10	KSRB 5-14 : Providing and constructing precast concrete solid blocks with compressive strength not less than 35 Kg/sqm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size **40x15x20cms** conforming to I.S: 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications **(Page No 25., I.No.5.34 of KPWD S.R 2015-16).**								
		Sqm							
	1st cross from post office to dead end								
	Ch: (28 - 43)	R/s	1	15		0.450	6.75		
							6.75	**963.36**	**6502.68**
11	1 KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (Page No 112., I.No.15.1 of KPWD S.R 2015-16).								
		Sqm							
	Near Railway under pass								
	Ch: (0 - 35)		2	35		0.250	17.50		
	Ch: (35 - 74)		2	39		0.250	19.50		
	1st cross from post office to dead end								
	Ch: (0 - 13)	L/s	2	13		0.250	6.50		
	Ch: (13 - 28)	L/s	2	15		0.250	7.50		
	Ch: (28 - 43)	R/s	1	15		0.250	3.75		
							54.75	**99.36**	**5439.96**
12	KSRB 4-1.5 : Providing and laying in position **plain cement concrete of mix M20** with OPC cement @ 300kgs, with 20mm and down size graded granite metal coarse aggregates @0.64cum and fine aggregtes @ 0.43cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation,plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 **(Page No 12., I.No.4.5 of KPWD S.R 2015-16).**								
		Cum							
	Packing concrete								
	Near Railway under pass								
	Ch: (0 - 35)	L/s	1	35	1.50	0.100	5.25		
	Ch: (35 - 74)	L/s	1	39	1.00	0.100	3.90		
	Ch: (0 - 20)	L/s	1	20	1.50	0.100	3.00		
	Ch: (20 - 74)	L/s	1	54	1.00	0.100	5.40		
	Coping concrete								
	Near Railway under pass								
	Ch: (0 - 35)		2	35	0.60	0.075	3.15		
	Ch: (35 - 74)		2	39	0.60	0.075	3.51		

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	1st cross from post office to dead end								
	Ch: (0 - 13)	L/s	2	13	0.45	0.075	0.88		
	Ch: (13 - 28)	L/s	2	15	0.45	0.075	1.01		
	Ch: (28 - 43)	R/s	1	15	0.45	0.075	0.51		
	Ch: (28 - 43)	R/s	1	15	0.15	0.075	0.17		
							26.78	**5991.84**	**160431.52**
13	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge-Data rate								
		Sqm							
	Covering Slab								
	For Damaged slab								
							12.15		
	1st cross from post office to dead end								
	Ch: (0 - 13)	L/s	1	13	1.20		15.60		
	Ch: (13 - 28)	L/s	1	15	1.20		18.00		
	Ch: (28 - 43)	R/s	1	15	0.90		13.50		
	New drain								
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (0 - 51)	L/s	1	51	0.90		45.90		
	Ch: (58 - 145)	L/s	1	87	0.90		78.30		
	Ch: (151 - 169)	L/s	1	18	0.90		16.20		
	Ch: (0 - 51)	R/s	1	51	0.90		45.90		
	Ch: (58 - 169)	R/s	1	111	0.90		99.90		
							345.45	**1834.00**	**633555.30**
14	Providing **precast slab of 250mm thick** including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge-Data rate								
		Sqm							
	Covering Slab								
	Near Railway under pass								
	Ch: (0 - 35)	L/s	1	35	2.00		70.00		
	Ch: (35 - 74)	L/s	1	39	2.00		78.00		
	New Culvert								
	Near Railway under pass								
			1	5.7	1.80		10.26		
	Adjacent to Corporation bank from Mysore Bank road								
	Ch: (51 - 58)	L/s	1	7	1.50		10.50		
	Ch: (145 - 151)	L/s	1	6	1.50		9.00		
	Ch: (51 - 58)	R/s	1	7	1.50		10.50		
							188.26	**5111.00**	**962196.86**
	ROAD WORKS								
15	KSRRB M200-13.1. **Dismantling of existing structures** like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications II. **By Mechanical Means. A. Cement Concrete Grade M-15 &M-20.(Page No 136, I.No.18.20 of KPWD S.R 2015-16).**								

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
		Cum							
	From 2nd cross to dead end								
	Ch: (0 - 40)		1	40	2.50	0.150	15.00		
							15.00	**450.83**	**6762.45**
16	KSRRB M300-14. **Excavation for roadwork in all type of soil with hydraulic excavator** of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location to a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 **(Page No 142., I.No.19.14 of KPWD S.R 2015-16).**								
		Cum							
	new construction								
	From 2nd cross to dead end								
	Ch: (0 - 40)		1	40	2.50	0.225	22.50		
							22.50	**134.20**	**3019.50**
17	KSRRB M400-6.1. Construction of **granular sub-base** by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method.Close graded granular sub-base material as per 400-1 For Grading- II Material **(Page No 154., I.No.20.4.2 of KPWD S.R 2015-16).**								
		Cum							
	From 2nd cross to dead end								
	Ch: (0 - 40)		1	40	2.50	0.150	15.00		
	Hosabeedi road from Hospital road								
	Ch: (0 - 85)		1	85	4.00	0.150	51.00		
							66.00	**1622.16**	**107062.56**
18	Cement concrete pavement.Construction of **un-reinforced plain cement concrete** pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 **design mix M30**(at 360 kg per cum coarse aggregate @ 0.69 cum and fine aggregate @0.46 cum) , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 eaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications.**(Page No 174., I.No.22.6.1 of KPWD S.R 2015-16).**								
		Cum							
	Nehru road rom post ofice								
	Ch: (0 - 56)		1	56	3.00	0.150	25.20		
	3rd cross From 2nd cross to dead end								
	Ch: (0 - 40)		1	40	2.50	0.150	15.00		
	2nd cross								
	Ch: (0 - 31)		1	31	2.20	0.150	10.23		
	Ch: (0 - 31)		1	31	4.00	0.150	18.60		
							69.03	**5957.28**	**411231.04**

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
19	Providing **groove cutting** for Concrete pavement width of 5mm to 10mm and depth 80mm-100mm including cost of cutting machine, generator & HOM of machinery, including cost of blade,coolant etc., including cleaning of groove & providing sand and hot bitumen fillars, and filler metal etc., including cost of conveyance of all materials, labour, lead and lift charges and all other incidental charges as per drawing and as per specifications.**(Page No 172., I.No.22.8.1 of KPWD S.R 2015-16).**								
		m							
	LONGITUDINAL								
	Nehru road rom post ofice								
	Ch: (0 - 56)		1	56			56.00		
	3rd cross From 2nd cross to dead end								
	Ch: (0 - 40)		1	40			40.00		
	2nd cross								
	Ch: (0 - 31)		1	31			31.00		
	Ch: (0 - 31)		1	31			31.00		
	LATERAL								
	Nehru road rom post ofice								
	Ch: (0 - 56)		12	3			36.00		
	From 2nd cross to dead end								
	Ch: (0 - 40)		9	2.5			22.50		
	Ch: (0 - 31)		7	2.2			15.40		
	Ch: (0 - 31)		7	4.4			30.80		
							262.70	**124.20**	**32627.34**
20	KSRRB 500-2. **Cleaning the existing black topped** surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH / Chapter 5**(Page No 160., I.No.21.2 of KPWD S.R 2015-16).**								
		Sqm							
	4th cross from post office to dead end								
	Ch: (0 - 54)		1	54	6.50		351.00		
	3rd cross from post office to dead end								
	Ch: (0 - 57)		1	57	5.80		330.60		
	2nd cross from post office to dead end								
	Ch: (0 - 53)		1	53	5.50		291.50		
	1st cross from post office to dead end								
	Ch: (0 - 59)		1	59	4.20		247.80		
	post office road from dead end to Railway station road								
	Ch: (0 - 116)		1	116	6.50		754.00		
							1974.90	**3.24**	**6398.68**
21	KSRRB 500-7. Providing and applying **tack coat** using 80/100 grade Bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm , heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **(Page No 160., I.No.21.7 of KPWD S.R 2015-16).**								
		Sqm							
	4th cross from post office to dead end								
	Ch: (0 - 54)		1	54	6.50		351.00		
	3rd cross from post office to dead end								

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	Ch: (0 - 57)		1	57	5.80		330.60		
	2nd cross from post office to dead end								
	Ch: (0 - 53)		1	53	5.50		291.50		
	1st cross from post office to dead end								
	Ch: (0 - 59)		1	59	4.20		247.80		
	post office road from dead end to Railway station road								
	Ch: (0 - 116)		1	116	6.50		754.00		
							1974.90	**15.12**	**29860.49**
22	KSRRB M500- 15. Providing, laying **dense graded bituminous macadam** using 40/60 THP capacity H.M P with Mechanical paver Gr-II(50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with wheeled , vibratory and tandeem rollers to achieve the desired density including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.507 **(Page No 161., I.No.21.17.6 of KPWD S.R 2015-16).**								
		Cum							
	Profile correction								
	20% of the total area		1	394.98		0.05	19.75		
							19.75	**7927.20**	**156554.27**
23	KSRRB M500- 15. Providing, laying **bituminousConcrete** using **40/60 THP** capacity H.M.P with Mechanical paver Gr-II(30mm to 45mm), crushed aggregates of specified grading premixed with 6% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with wheeled , vibratory and tandeem rollers to achieve the desired density including all leads and lift cost of all materials, labour, HOM of machineries complete as per specifications MORTH Specification No.509 **(Page No 164., I.No.21.22.6 of KPWD S.R 2015-16).**								
		Cum							
	4th cross from post office to dead end								
	Ch: (0 - 54)		1	54	6.50	0.030	10.53		
	3rd cross from post office to dead end								
	Ch: (0 - 57)		1	57	5.80	0.030	9.92		
	2nd cross from post office to dead end								
	Ch: (0 - 53)		1	53	5.50	0.030	8.75		

Sl. No.	Particulars	Unit / Rate	Nos	L in m	B in m	D in m	Quantity	Rate in Rs	Total Amount in Rs
	1st cross from post office to dead end								
	Ch: (0 - 59)		1	59	4.20	0.030	7.43		
	post office road from dead end to Railway station road								
	Ch: (0 - 116)		1	116	6.50	0.030	22.62		
							59.25	**9822.60**	**581959.58**
	Sub Total								**4930235.52**
24	Cost towards Design Report and Detailed Estimate,PMC/Third party								**49302.36**
25	**Cost of Plastic@ 8% of bitumen qty for BC**	**Kg**	1	668.31				**27.00**	**18044.27**
26	Miscllenous and other charges								**2417.86**
	Grand Total								**5000000.00**

Certificate:-

1. That the workspot inspected by me and found work is necessary.
2. That the area comes with in the Bruhat Bangalore Mahanagara Palike Limits.
3. That the rates are adopted based on the PWD SR of 2015-16
4. That the provisions made in the estimate are necessary and quite essential.

Consultant:

For M/s MECADEZ CORE TECHNOLOGIES PVT LTD

Asst. Engineer
Ward No-1
BBMP

AEE
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